



Recommended Grades:

Intermediate Level (5-8).

Objective:

Construct a model of a composite, shield or cinder cone volcano.

Principles:

1. There are different types of volcanoes: composite, shield and cinder cone.
2. Volcanic eruptions release small particles (aerosols) into the atmosphere, which scientists believe reflect incoming solar radiation.

Activity:

1. Students should read the NASA Facts Atmospheric Aerosols article <http://oea.larc.nasa.gov/PAIS/Aerosols.html> to learn more about volcanic aerosols.
2. Discuss the impacts of volcanic eruptions. (Examples: Why do volcanoes erupt? What happens to the volcanic ash when it is released from a volcano? What do you think happens to the Earth's temperature as these aerosols block the incoming solar radiation?)
3. Visit Volcano World for ideas on how to make the following types of volcano models: http://www.volcanoworld.org/vwdocs/volc_models/models.html
 - Play Dough Volcano Model
 - Simple Clay Volcano
 - Three-Dimensional Cardboard Volcano
 - Paper & Cardboard Shield Volcano
 - Sand/Cinder Volcano
 - Electronic Volcano
 - Paper Volcano
 - Paper Mache Volcano
4. Have students write an **informative** composition about how aerosols impact the Earth. The NASA Facts Atmospheric Aerosols article may serve as a reference for this writing activity.

Suggested Literature:

- The Magic School Bus Science Exploration B by Scholastic Staff [ISBN: 0590257587]
- 1,000 Facts about the Earth by Moira Butterfield [ISBN: 1856978087]
- Volcanoes by Seymore Simon [ISBN: 0688140297]